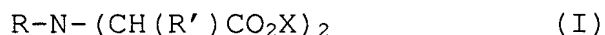


**CLAIMS**

1. Reducing composition for bleaching or permanently reshaping keratin fibres, comprising at least one reducing agent, characterized in that it  
5 comprises at least one compound corresponding to formula (I) below:



10 in which:

- R represents a hydrogen atom or a group  $-\text{CH}(\text{CO}_2\text{X})-(\text{CH}_2)_2\text{CO}_2\text{X}$ ,  $-\text{CH}_2-\text{CH}_2-\text{OH}$ ,  $-\text{CH}(\text{CH}_3)-\text{CO}_2\text{X}$  or  $-(\text{CH}_2)_2-\text{N}(\text{COR}'')-\text{CH}_2-\text{CO}_2\text{X}$ ;
- R'' represents a linear or branched alkyl group  
15 containing from 1 to 30 carbon atoms, or a cyclo-alkyl group containing from 3 to 30 carbon atoms;
- R' represents a group  $-\text{CH}_2\text{CO}_2\text{X}$  when R represents a hydrogen atom, whereas R' represents a hydrogen atom when R is other than a hydrogen atom; and
- 20 • X represents a hydrogen atom or a monovalent or divalent cation derived from an alkali metal, from an alkaline-earth metal, from a transition metal or from an organic amine, or an ammonium cation.

25 2. Composition according to Claim 1, in which the monovalent or divalent cation is chosen from the group consisting of alkali metal cations, alkaline-earth metal cations, divalent transition metal cations and monovalent cations derived from organic amines or  
30 from ammonium.

3. Composition according to Claim 1 or Claim 2, characterized in that the compound(s) of formula (I) is(are) chosen from the group consisting of  
35 methylglycine diacetic acid, 2-hydroxyethylimino

diacetic acid, N-lauroyl-N,N',N'-ethylenediamine  
triacetic acid, iminodisuccinic acid and  
N,N-dicarboxymethyl-L-glutamic acid, the alkali metal  
salts thereof, the alkaline-earth metal salts thereof,  
5 the transition metal salts thereof, and mixtures  
thereof.

4. Composition according to any one of the  
preceding claims, characterized in that the compound(s)  
10 of formula (I) is(are) chosen from the group consisting  
of 2-hydroxyethylimino diacetic acid and methylglycine  
diacetic acid and the sodium salts thereof, and  
mixtures thereof.

15 5. Composition according to any one of the  
preceding claims, characterized in that the compound(s)  
of formula (I) represent(s) from 0.001% to 10% by  
weight relative to the total weight of said  
composition.

20 6. Composition according to any one of the  
preceding claims, characterized in that the compound(s)  
of formula (I) represent(s) from 0.001 to 5% by weight  
relative to the total weight of said composition.

25 7. Composition according to any one of the  
preceding claims, characterized in that the reducing  
agent(s) is(are) chosen from the group consisting of  
reductones and the salts and esters thereof, sulphites  
30 and sulphinates.

8. Composition according to any one of  
Claims 1 to 6, characterized in that the reducing  
agent(s) is(are) chosen from the group consisting of

thiols and the salts and esters thereof, sulphites and sulphinates.

9. Composition according to Claim 8,  
5 characterized in that the reducing agent(s) is(are) chosen from the group consisting of thioglycolic acid, thiolactic acid, cysteamine and cysteine, and the salts and esters thereof.

10 10. Composition according to any one of the preceding claims, characterized in that the reducing agent(s) represent(s) from 0.1% to 30% by weight relative to the total weight of said composition.

15 11. Composition according to any one of the preceding claims, characterized in that the reducing agent(s) represent(s) from 0.5% to 20% by weight relative to the total weight of said composition.

20 12. Composition according to any one of the preceding claims, characterized in that it also comprises one or more cationic or amphoteric conditioning polymers, in proportions of from 0.01% to 10% by weight and preferably from 0.05% to 5% by weight  
25 relative to the total weight of said composition.

13. Composition according to any one of the preceding claims, characterized in that it also comprises one or more nonionic, anionic, cationic or  
30 amphoteric amphiphilic polymers, comprising a hydrophobic chain, in proportions of from 0.05% to 20% by weight and preferably from 0.1% to 10% by weight relative to the total weight of said composition.

14. Composition according to any one of the preceding claims, characterized in that it also comprises one or more surfactants, in proportions of from 0.01% to 40% by weight and preferably from 0.1% to 5 30% by weight relative to the total weight of said composition.

15. Composition according to any one of the preceding claims, characterized in that it also 10 comprises one or more rheology modifiers other than the nonionic, anionic, cationic or amphoteric amphiphilic polymers, comprising a hydrophobic chain, in proportions of from 0.05% to 20% by weight and preferably from 0.1% to 10% by weight relative to the 15 total weight of said composition.

16. Composition according to any one of the preceding claims, characterized in that it also comprises one or more acidifying or basifying agents, 20 in proportions of from 0.01% to 30% by weight relative to the total weight of said composition.

17. Composition according to any one of the preceding claims, characterized in that it also 25 comprises one or more solvents chosen from the group consisting of water and mixtures composed of water and of one or more cosmetically acceptable organic solvents, this or these solvent(s) representing from 0.5% to 20% by weight and preferably from 2% to 10% by 30 weight relative to the total weight of said composition.

18. Composition according to any one of the preceding claims, characterized in that it also 35 comprises one or more adjuvants chosen from the group

consisting of mineral or organic fillers, binders, lubricants, antifoams, silicones, dyes, matting agents, preserving agents and fragrances.

5                   19. Process for bleaching or permanently  
reshaping keratin fibres, comprising the steps  
consisting in:

10                   a) applying to the keratin fibres a  
reducing composition according to any one of Claims 1  
to 18;

                  b) leaving the reducing composition to  
stand on the keratin fibres for a time that is  
sufficient to obtain the desired bleaching or permanent  
reshaping;

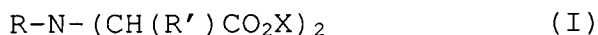
15                   c) rinsing the keratin fibres to remove the  
reducing composition therefrom;

                  d) washing the keratin fibres one or more  
times, rinsing them after each wash, and optionally  
drying them;

20                   said process also comprising, between steps c) and d),  
in the case of a permanent reshaping, the steps  
consisting in: i) applying an oxidizing composition to  
the keratin fibres; ii) leaving the oxidizing  
composition to stand on the keratin fibres for a time  
25                   that is sufficient to obtain the desired reshaping; and  
iii) rinsing the keratin fibres with water to remove  
the oxidizing composition therefrom.

30                   20. Device or "kit" for bleaching keratin  
fibres, comprising at least two compositions A and B  
intended to be mixed together to obtain a ready-to-use  
reducing composition, characterized in that at least  
one of the compositions A and B contains one or more  
reducing agents and at least one of the compositions A

and B contains one or more compounds corresponding to the general formula (I) below:



5

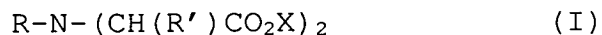
in which:

- R represents a hydrogen atom or a group  $-\text{CH}(\text{CO}_2\text{X})-(\text{CH}_2)_2\text{CO}_2\text{X}$ ,  $-\text{CH}_2-\text{CH}_2-\text{OH}$ ,  $-\text{CH}(\text{CH}_3)-\text{CO}_2\text{X}$  or  $-(\text{CH}_2)_2-\text{N}(\text{COR}'')-\text{CH}_2-\text{CO}_2\text{X}$ ;
- 10 • R'' represents a linear or branched alkyl group containing from 1 to 30 carbon atoms, or a cycloalkyl group containing from 3 to 30 carbon atoms;
- R' represents a group  $-\text{CH}_2\text{CO}_2\text{X}$  when R represents a hydrogen atom, whereas R' represents a hydrogen atom when R is other than a hydrogen atom; and
- 15 • X represents a hydrogen atom or a monovalent or divalent cation derived from an alkali metal, from an alkaline-earth metal, from a transition metal or from an organic amine, or an ammonium cation.

20

21. Device or "kit" for permanently reshaping keratin fibres, comprising, firstly, either a composition A or at least two compositions A' and B' intended to be mixed together to obtain a ready-to-use  
 25 reducing composition, and, secondly, a ready-to-use oxidizing composition C or at least two compositions D and E intended to be mixed together to obtain a ready-to-use oxidizing composition, said device being characterized in that either composition A or at least  
 30 one of the compositions A' and B' contains one or more reducing agents, and either composition A or at least one of the compositions A' and B' contains at least one or more compounds corresponding to the general formula (I) below:

35



in which:

- R represents a hydrogen atom or a group  
-CH(CO<sub>2</sub>X)-(CH<sub>2</sub>)<sub>2</sub>CO<sub>2</sub>X, -CH<sub>2</sub>-CH<sub>2</sub>-OH, -CH(CH<sub>3</sub>)-CO<sub>2</sub>X or  
5 - (CH<sub>2</sub>)<sub>2</sub>-N(COR'')-CH<sub>2</sub>-CO<sub>2</sub>X;
- R'' represents a linear or branched alkyl group  
containing from 1 to 30 carbon atoms, or a cyclo-  
alkyl group containing from 3 to 30 carbon atoms;
- R' represents a group -CH<sub>2</sub>CO<sub>2</sub>X when R represents a  
10 hydrogen atom, whereas R' represents a hydrogen  
atom when R is other than a hydrogen atom; and
- X represents a hydrogen atom or a monovalent or  
divalent cation derived from an alkali metal, from  
an alkaline-earth metal, from a transition metal or  
15 from an organic amine, or an ammonium cation.

22. Use of a composition according to any  
one of Claims 1 to 18, or of a process according to  
Claim 19, or of a device according to Claim 20 or Claim  
20 21, for bleaching or permanently reshaping human  
keratin fibres and more especially the hair.